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APPLICATION NUMBER 08/581,347	FILING DATE 12/29/95	FIRST NAMED APPLICANT CLEEVE'S	ATTY/POCKET NO. 1641
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HM32/0804  
BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD  
SEVENTH FLOOR  
LOS ANGELES CA 90025

EXAMINER RYAN, V	
ART UNIT 1641	PAPER NUMBER 7

DATE MAILED: 08/04/98

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

### OFFICE ACTION SUMMARY

Responsive to communication(s) filed on May 18, 1998  
 This action is FINAL.  
 Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1 - 20 is/are pending in the application.  
 Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 Claim(s) 1 - 20 is/are allowed.  
 Claim(s) \_\_\_\_\_ is/are rejected.  
 Claim(s) \_\_\_\_\_ is/are objected to.  
 Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.  
 The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.  
 The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.  
 The specification is objected to by the Examiner.  
 The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).  
 All  Some\*  None of the CERTIFIED copies of the priority documents have been  
 received.  
 received in Application No. (Series Code/Serial Number) \_\_\_\_\_  
 received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of Reference Cited, PTO-892  
 Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_  
 Interview Summary, PTO-413  
 Notice of Draftsperson's Patent Drawing Review, PTO-948  
 Notice of Informal Patent Application, PTO-152

-SEE OFFICE ACTION ON THE FOLLOWING PAGES-

Art Unit: 1641

## **DETAILED ACTION**

The Group and/or Art Unit location of your application in the Patent and Trademark Office has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1641.

The text of those sections of Title 35 U.S. Code not included in this action can be found in a prior Office Action.

The Examiner acknowledges receipt of the amendment filed May 29, 1998.

In this application:

Claims 1 and 14 were amended.

Claims 1-20 are now pending and under examination.

### **Response to Amendment**

(1) The rejection of claims 1-20 under 35 U.S.C. 102(b) as being anticipated by Horiuchi et al is withdrawn; however, the rejection of the claims based on the reference of Cathey, Jr is maintained.

Applicant submits that Cathey, Jr disclose the use of O-ring seals between a wafer and an electrode, but does not appear to

discuss or suggest the use of the seals having properties similar to the claimed heat transferring seal.

However, it is the Examiner's position that Cathey, Jr discloses O-ring seals are placed between the periphery of the wafer and electrode to prevent the problem of poor heat transfer between the wafer and the metal electrode. Furthermore, helium gas is used to fill the "voids" between the wafer and supporting electrode. (See especially column 2, lines 5-45. Moreover, Cathey, Jr discloses that O-rings, which can be about 0.1 to 0.25 inches in cross section, increases the sealability between a wafer and a supporting electrode.

The following are new grounds of rejections:

***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Number 223, which is referred to at page 7, line 10 in the specification, is not included in the drawings.

Number 217, which is referred to at page 8, lines 10, and 12, is not included in the drawings.

Correction is required.

The drawings are objected to as failing to comply with 37 CFR 1.84(p) (4) because different reference characters have both been used to designate the same part of the apparatus showing different views. Correction is required.

***Claim Rejections - 35 USC § 112***

Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 14 were amended to recite "a first thermal conductivity" and "a second thermal conductivity", and "a cross-section configured to transfer heat to or from the substrate uniformly". However, the specification fails to provide support for these limitations. Although Applicant refers to pages 8-9 to demonstrate support for the limitations, there is no support for these term at these locations.

Claims 5 and 16 recite the limitation "transferring seal is adhesive". However, the specification does not provide support for this limitation.

Claim 4 recites the limitation of a heat transferring seal having "a thickness of 25 to 125 microns". However, the specification does not provide support for this limitation. Although page 8, lines 21-26 of the specification teaches a "heat transferring seal 220 is approximately 75 microns", there is no teaching or suggestion of a seal that is "20 to 125 microns".

Claim 12 recites the limitation of a heat transferring seal having "a width of approximately 3 to 4 mm". However, the specification does not provide support for this limitation.

Claim 13 recites the limitation of a substrate having "a thickness of approximately 25-125 microns". However, the specification does not provide support for this limitation.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 14 are indefinite in the recitation of the term "a cross-section configured to transfer to or from the substrate uniformly". It is unclear what Applicant intends and the term is not adequately defined in the specification.

Claims 1 and 14 are indefinite in the recitation of the terms "a first thermal conductivity" and "a second thermal conductivity". It is not clear if Applicant intends that the gas and the heat transferring seal to be of the same thermal conductivity.

Claim 5 is indefinite in the recitation of the term "adhesive". It is not clear what Applicant intends.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Suzuki et al (US Patent #5,695,566)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Ryan whose telephone number is (703) 305-6558.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel, can be reached on (703) 308-4027.

Papers related to this application may be submitted to the Group 1600 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The fax number for Art Unit 1641 is (703) 308-4242.

V. Ryan  
Patent Examiner/Art Unit 1641  
July 1998  
Ryan/vr

*James C. Housel*  
JAMES C. HOUSEL 8/3/98  
SUPERVISORY PATENT EXAMINER